Steelhead

Oncorhyncus mykiss

STATUS

Threatened (63 FR 32997; June 17, 1998)
Critical Habitat designated (59 FR 54840, November 2, 1994)

The National Marine Fisheries Service (NMFS) is the lead federal agency for anadromous fish.

DESCRIPTION

Steelhead are the anadromous (seagoing) form of rainbow trout. They have white stomachs and black spots on their tails and backs. Sea-going steelhead are silver with silvery-blue backs that turn olive green when they migrate to spawn. As spawning time nears, their sides become pink or red, and the males develop a hooked snout. Most steelhead weigh between 5 and 10 pounds, but they may weigh as much as 25 pounds. Idaho steelhead are called "summer steelhead" because they enter the Columbia River from June through September, arriving in Idaho — 400 miles from the ocean — in August and September. Steelhead spend the winter in Idaho streams before spawning in the months of March through May. They then spend six to 10 months in freshwater on their spawning migration without feeding. Depending on water temperature, steelhead eggs incubate in "redds" (nesting gravels) for up to four months before hatching as "alevins" (a larval life stage dependent on food stored in a yolk sac). Alevins emerge from the gravel as young "fry" (juveniles), and begin actively feeding. Typically, after one to three years, these fish migrate from fresh water to ocean waters as "smolts." They stay in marine waters for one to three years, then begin their return to natal fresh waters as four- or five-year-olds. Unlike salmon, steelhead are capable of spawning more than once before they die, although it is rare for them to spawn more than twice.

HISTORY

Steelhead were once distributed throughout the North Pacific Ocean from the Kamchatka Peninsula in Asia to the northern Baja Peninsula. They likely also inhabited most coastal streams in Washington, Oregon and California, as well as many inland streams in those states and Idaho.

DISTRIBUTION

Steelhead once occurred in the Snake River and all its tributaries downstream from Twin Falls. High dams in Hells Canyon on the Snake River and Dworshak on the North Fork Clearwater blocked steelhead runs from about one-third of their former occupied habitat. Steelhead, however, are common in the Snake, Salmon and Clearwater Rivers below the dams. Today, about 9,000 wild, native steelhead return to Idaho, but 60,000-70,000 hatchery-produced steelhead provide popular fisheries.

WHAT HAS THREATENED THIS SPECIES?

Dam construction on the Snake and Columbia Rivers has affected steelhead populations, as the dams are obstacles to safe passage for the fish during their migration journey to and from the sea. Habitat loss and degradation due to human activity such as land development, logging, mining and agriculture have also threatened this species.

WHAT IS BEING DONE TO HELP RECOVER THIS SPECIES?

Efforts are underway to conserve and enhance natural steelhead populations by improving seaward migration survival, restoring habitat, reducing harvest and modifying hatchery operations.

REFERENCES

National Marine Fisheries Service. 1998.